In the claims

Preliminarily, please cancel claims 1 through 50 without prejudice or disclaimer and add the following new claims:

51.   (new) A method comprising

at each repository of a set of repositories at which digital objects are stored, exposing an interface that is configured to respond to service requests conforming to a repository access protocol, the repository access protocol being used in common by the repositories, and in which

each of the service requests to which the interface is configured to respond includes a globally unique persistent identifier of at least one of the digital objects,

the service requests include an access request for accessing at least one digital object or data related to at least one digital object and a deposit request for depositing at least one digital object or data related to at least one digital object.

52.   (new) The method of claim 51 in which at least some of the service requests include additional parameters.

53.   (new) The method of claim 51 in which the access request is directed to at least one of the digital object, metadata, or key-metadata.

54.   (new) The method of claim 51 in which at least some of the service requests are dependent on a type of data included in the digital object.

55.   (new) The method of claim 54 in which the type of data includes at least one of an executable contained in the digital object or a subpart of the digital object.

56.   (new) The method of claim 51 also including

responding to each of the access requests by a dissemination that includes a result of servicing the access request.

57.   (new) The method of claim 56 in which the dissemination includes at least one of key-metadata, identity of a repository, the access request, and a transaction string.

58.   (new) he method of claim 56 in which the dissemination includes information derived from a properties record associated with the digital object.

59.   (new) The method of claim 51 in which the service requests also include a reference request, and the method also includes:

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servicing a reference request at a repository by identifying sources of information about at least one digital object that is a subject of the reference request.

60.   (new) A method comprising

storing, communicating, or receiving a digital object, the digital object being typed as one of the following types: bit-sequence, digital-object, handle, set-of-bit-sequences, set-of-digital objects and set-of-handles.

61.   (new) The method of claim 60 in which the types of digital objects are registered.

62.   (new) The method of claim 60 in which the digital object is of a subtype within one of the types.

63.   (new) A method comprising

storing, communicating, or receiving a properties record associated with a digital object, the properties record including metadata for the digital object.

64.   (new) The method of claim 63 in which the metadata includes key-metadata that is invariant for the digital object.

65.   (new) The method of claim 64 in which the key-metadata includes a persistent globally unique identifier.

66.   (new) A method comprising

storing an immutable digital object in a repository, and

serving all access requests that are functionally dependent on data of the digital object by identical disseminations.

67.   (new) The method of claim 66 in which the immutability of the digital object is indicated in metadata associated with the digital object.--